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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,934	01/13/2006	Jean-Marie Poulet	CAB-17902	5171
40854 7590 10/17/2008 RANKIN, HILL, & CLARK LLP 38210 Glenn Avenue WILLOUGHBY, OH 44094-7808				
EXAMINER				
AHVAZI, BILAN				
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1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/564,934

## Applicant(s)

POULET ET AL.

## Examiner

Bijan Ahvazi

## Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 33-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date 01/13/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10 are drawn to a method for reinforcing the anticorrosion properties of a coating composition, classified in class 524, and subclass 403.
  - II. Claims 11-32 are drawn to an anticorrosion coating composition, classified in class 252, subclass 387.
  - III. Claims 33-38 are drawn to a metal substrate coated with an anticorrosion coating, classified 252 in class subclass 389.52 or 106/14.44.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make another and materially different product such as superconducting solution.
3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the

process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make another and materially different product such as superconducting solution.

4. Inventions II and III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product, and the species are patentably distinct (MPEP § 806.05(j)). In the instant case, the intermediate product is deemed to be useful as coating composition.

5. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined** even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation Mark E. Bandy on 9/25/2008 a provisional election was made **with traverse** to prosecute the invention of Poulet *et al.*, claims 11-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 and 33-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

8. Claim 11 is objected to because of the following informalities: the claim is required to be ended with a period ".". Appropriate correction is required.

9. Claim 23 is objected to because of the following informalities: The alcoxylated in line 3 need to be changed to alkoxylated. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 17-19, 21, 23, 25, 27 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required

feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 17, 18, 19, 21 and 30, recites the broad recitation ranges and the claim also recites "preferably" which is the narrower statement of the range/limitation.

12. Regarding claims 23 and 27, the phrase "type" renders the claim(s) indefinite thereby rendering the scope of the claim(s) unascertainable. The addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render it indefinite, see *Ex parte Copenhagen*, 109 USPQ 1 18 (Bd. App. 1955). See also MPEP 2173.05 (B) (e).

13. Regarding claim 25, the phrase "in particular" renders the claim(s) indefinite thereby rendering the scope of the claim(s) unascertainable.

14. Claim 27 recites the limitation "thickening agent" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 11-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maze *et al.* (WO 02/38686 A2) in view of Jung *et al.* (Pub. No. US 2004/0062873 A1).

Maze *et al.* disclose an anti-corrosion coating composition for metal parts, characterized in that it comprises: at least one particulate metal; an organic solvent; a thickener; a silane-based binder, preferably carrying epoxy functional groups; molybdenum oxide ( $\text{MoO}_3$ ); possibly a silicate of sodium, potassium or lithium, and; water (Page 3, lines 10-20) wherein the content of molybdenum oxide  $\text{MoO}_3$  is preferably between 0.5 and 7% and even more preferably in the region of 2% by weight of the total composition (Page 3, line 23) corresponding to the instant applicants' limitation claims 11,12 and 13. The particulate metal present in the composition may be chosen from zinc, aluminium, chromium, manganese, nickel, titanium, their alloys and intermetallic compounds, and mixtures thereof (Page 3, lines 26-30). Advantageously, the particulate metal content is between 10% and 40% by weight of metal with respect to the weight of the composition (Page 3, line 36) corresponding to the instant applicants' limitation claims 14, 15 and 16. Such a composition also makes use of a binder, preferably an organofunctional silane, used in an amount of 3% to 20% by weight (Page 4, line 34) corresponding to the instant applicants' limitation claims 22. The organofunctionality can be represented by vinyl, methacryloxy and amino, but is preferably epoxy functional for enhanced coating

performance as well as composition stability. The silane is advantageously easily dispersible in aqueous medium, and is preferably soluble in such medium (Page 4, line 35) corresponding to the instant applicants' limitation claims 23. Preferably, the useful silane is an epoxy functional silane such as beta-(3, 4-epoxycyclohexyl) ethyltrimethoxysilane, 4(trimethoxysilyl) butane-1, 2 epoxide or  $\gamma$ -glycidoxypopyltrimethoxysilane (Page 5, line 3) corresponding to the instant applicants' limitation claim 24.

The anti-corrosion coating compositions may also contain, in addition to the organic solvent such as a glycol ether, in particular diethylene glycol, triethylene glycol and dipropylene glycol (Page 4, line 18), up to a maximum amount of approximately 10% by weight of white spirit so as to improve the ability of the anti-corrosion compositions to be applied to the metal parts by spraying, dipping or dip-spinning (Page 5, line 7) corresponding to the instant applicants' limitation claim 25. Advantageously, the composition may also contain a silicate of sodium, potassium or lithium, preferably in an amount comprised between 0.05 % to 0.5 % by weight (Page 5, line 14), with the disclosed features % by weight as discussed above corresponding to the instant applicants' limitation claim 30.

According to another embodiment, the anti-corrosion composition also contains from 0.005% to 2% by weight of a thickening agent (reads on up to &% by weight of the instant applicants), in particular of a cellulose derivative, more particularly hydroxymethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, xanthan gum or an associative thickener of the

polyurethane or acrylic type (Page 4, lines 21-27) corresponding to the instant applicants' limitation claims 26 and 27. Maze *et al.* further disclose the standard reference GEOMET® composition in Example 1 corresponds to 0.65% of a weak mineral such as boric acid, 0.4% of Schwego Foam® (emulsified antifoam), and 0.53% of Aerosol® TR70 (an anionic surfactant) (Page 8, line 20) corresponding to the instant applicants' limitation claims 29, 31 and 32. However, Maze *et al.* fail to disclose a reinforcing agent for the anticorrosion properties of the composition selected from the group consisting of yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides or salts and a lubricating agent to obtain a self-lubricated system selected from the group consisting of polyethylene, MoS<sub>2</sub>, graphite, polysulfones, polytetrafluoroethylene, synthetic or natural waxes and nitrides, and their mixtures.

Jung *et al.* disclose method of coating metallic surfaces and also to the use of the coated substrates produced in particular in vehicle construction, especially in the line manufacture of automobiles, and for the production of components or bodywork parts or premounted elements in the vehicle, air travel or space travel industry (Page 1, ¶0001). Jung *et al.* utilize the inorganic compound in particle form that is added is a finely divided powder, a dispersion or a suspension, such as, for example, a carbonate, an oxide, a silicate or a sulfate, especially colloidal and/or amorphous particles. With particular preference the inorganic compound in particle form comprises particles based on at least one compound of lanthanum, of silicon, of

titanium, of yttrium, of zinc and/or of zirconium, especially particles based on alumina, barium sulfate, cerium dioxide, silica, silicate, titanium oxide, yttrium oxide, zinc oxide and/or zirconium oxide (Page 5, ¶0043) wherein inorganic compound is characterized in that the aqueous composition comprises from 0.1 to 500 g/L (reads on the same % by weight of the instant applicants) of the at least one inorganic compound in particle form (Page 33, Claim 24), which corresponding to the instant applicants' limitation claims 11, 17, 18, 19 and 20. Jung *et al.* further disclose to add as a lubricant, which may also serve as a forming agent, at least one wax selected from the group consisting of paraffins, polyethylenes, and polypropylenes, especially an oxidized wax (Page 5, ¶0045) corresponding to the instant applicants' limitation claim 28.

Regarding the composition of wherein said reinforcing agent for the anticorrosion properties of the composition is associated with molybdenum oxide  $\text{MoO}_3$  in a weight proportion  $0.25 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 20$ , preferably  $0.5 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 16$ , further preferably  $0.5 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 14$ , it is the examiner's position that is *prima facie* obvious that the anticorrosion property reinforcing agent :  $\text{MoO}_3$  ratio is the parameter that is considered to be a result-effective variable. It is held that a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation (see MPEP § 2144.05).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have an anti-corrosion coating composition for metal parts by Maze *et al.* with a reinforcing agent for the anticorrosion properties of the composition such as yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides or salts and a lubricating agent to obtain a self-lubricated system as taught by Jung *et al.* in order to improve the anti-corrosion properties of parts treated without using a composition based on reinforcing agent in the formulation of the coatings with less toxic risk and less adverse consequences for the environment.

#### ***Examiner Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bijan Ahvazi, Ph.D. whose telephone number is (571)270-3449. The examiner can normally be reached on M-F 8:0-5:0. (Off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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09/16/2008